AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) An image distortion correcting apparatus, comprising:

a reference image generating means for generating a reference image and setting a coordinate of the reference image;

a displacement measuring means for displaying the reference image on a screen and measuring a coordinate of the displayed <u>reference</u> image;

a distortion information extracting means for extracting distortion information on the basis of a coordinate value of the ~~set~~<u>displayed</u> reference image and a coordinate value of the measured <u>displayed reference</u> image and generating inverse-distortion information; and

a distortion correcting means for generating an inverse-distorted image of the reference image on the basis of the generated inverse-distortion information.

2.   (Currently Amended) The apparatus of claim 1, further comprising:

a memory means for updating the generated inverse-distortion information and storing ~~it~~ <u>the updated generated inverse-distortion information</u>.

3.   (Currently Amended) The apparatus of claim 2, wherein the memory means ~~uses a~~

~~SRAM (~~ comprises a static random access memory~~)~~ SRAM so as to ~~be performable~~ perform

high speed storing and access of the inverse-distortion information.

4.   (Currently Amended) The apparatus of claim 1, wherein the distortion

information extracting means includes an image interpolating means ~~in order~~ to perform pixel

unit interpolation of the displayed reference image.

5.   (Currently Amended) The apparatus of claim 4, wherein the image interpolating

means uses one of a one-dimensional interpolation, a two-dimensional interpolation, a linear

interpolation, a nearest interpolation ~~and~~ or a three-dimensional interpolation.

6.   (Original) The apparatus of claim 1, wherein the distortion information extracting

means extracts the distortion information on the basis of a three-dimensional virtual screen and

generates the inverse-distortion information.

7.   (Currently Amended) The apparatus of claim 6, wherein the three-dimensional

virtual screen is a virtual three-dimensional plane ~~consisting of~~ including cross points between

straight lines indicating a path of the reference image from a ~~CRT (~~cathode ray tube~~)~~ (CRT) to

the screen and virtual straight lines vertically formed on the screen from a point in which the

reference image is displayed on the screen without distortion.

8.   (Currently Amended) A projection image display device, comprising:

a digital video signal processing means for converting an input video signal into a digital video signal;

an inverse-distortion information generating means for extracting a distortion parameter on the basis of the digital video signal and generating inverse-distortion information on the basis of the extracted distortion parameter, the inverse-distortion information generating means generating the inverse-distortion information based on a coordinate value of a reference image and a coordinate value of a displayed image;

a memory means for updating the extracted inverse-distortion information and storing it the updated inverse-distortion information;

an inverse-distortion processing means for performing inverse-distortion processing of the digital video image on the basis of the stored inverse-distortion information; and

an image projecting means for displaying the inverse distortion-processed image.

9.   (Currently Amended) The device of claim 8, wherein the inverse-distortion information generating means includes:

a reference image generating means for generating a coordinate of the digital video signal;

a displacement measuring means for displaying the reference image on a screen and measuring a coordinate of the displayed reference image; and

a distortion information extracting means for extracting distortion information on

the basis of ~~a~~ the coordinate value of the ~~set~~ reference image and ~~a~~ the coordinate value of the

measured displayed reference image and generating inverse-distortion information.

10.   (Currently Amended) The device of claim 8, wherein the memory means ~~uses~~

includes a static random access memory (SRAM) so as to ~~be performable~~ perform high speed

storing and access of the inverse-distortion information.

11.   (Currently Amended) The device of claim 8, wherein the ~~distortion~~ inverse-

distortion information ~~extracting~~ generating means extracts the distortion information on the

basis of a three-dimensional virtual screen and generates the inverse-distortion information.

12.   (Currently Amended) The device of claim 11, wherein the three-dimensional

virtual screen is a virtual three-dimensional plane ~~consisting of~~ including cross points between

straight lines indicating a path of a digital video signal from a cathode ray tube (CRT) to the

screen and virtual straight lines vertically formed on the screen from a point in which the digital

video signal is displayed on the screen without distortion.

13. (Original) An image distortion correcting method, comprising:

measuring a keystone distortion-parameter by displaying an input image on a screen;

performing inverse keystone distortion-correction of the input image on the basis of the measured keystone distortion-parameter;

measuring a pincushion distortion-parameter by displaying the inverse keystone distortion-corrected image on the screen; and

performing inverse pincushion distortion-correction of the image displayed on the screen repeatedly on the basis of the measured pincushion distortion-parameter.

14. (Original) The method of claim 13, wherein the keystone distortion-parameter and the pincushion distortion-parameter are measured by grasping displacement of certain points on the basis of the image displayed on the screen.

15. (Original) The method of claim 13, wherein the keystone distortion-parameter and the pincushion distortion-parameter are gradually updated by performing each image distortion correcting process repeatedly.

16.   (Currently Amended) An image distortion correcting method using a three-dimensional virtual screen technique, comprising:

initializing a virtual screen showing keystone distortion and pincushion distortion;

generating an inverse-distorted image on the basis of the initialized virtual screen;

generating a distortion-corrected image on the basis of the generated inverse-distorted image and displaying the generated image on a screen;

comparing the distortion-corrected image with the image displayed on the screen;

updating the virtual screen when the image displayed on the screen is-does not coincided-coincide with the distortion-corrected image; and

finishing the virtual screen updating when the image displayed on the screen is coincided-coincides with the distortion-corrected image.

17.   (Currently Amended) The method of claim 16, wherein the virtual screen is updated in the updating of virtual screen-updating step, and steps-the initializing the virtual screen, the generating the inverse-distorted image, the generating the distortion-corrected image and the comparing the distortion-corrected image are repeatedly performed starting from the initializing the virtual screen-initializing step.

18.   (Canceled)

16

19.   (Currently Amended) The method of claim 16, wherein the three-dimensional virtual screen is a virtual three-dimensional plane ~~consisting of~~ including cross points between straight lines indicating a path of an input video signal from a <u>cathode ray tube (CRT)</u> to the screen and virtual straight lines vertically formed on the screen from a point in which the input video signal is displayed on the screen without distortion.

20.   (Original) The method of claim 16, wherein the three-dimensional virtual screen is formed by adding a virtual screen functional value of the keystone distortion and a virtual screen functional value of the keystone distortion linearly.

21.   (Original) The method of claim 16, wherein an image is divided into several blocks, and distortion of each image block is corrected.